

35. (Amended) An apparatus for measuring a perceived bit rate between the apparatus and a second apparatus, the apparatus comprising:

a bit rate measurer to measure a number of bits transmitted between the apparatus and the second apparatus over a time period, wherein:

the number of bits measured are those included only within at least one transaction unit, and

the time period is a sum of time durations of each of the at least one transaction unit.

36. (Amended) The apparatus of claim 35, wherein the apparatus functions as a server and the second apparatus functions as a client and a respective one of the time durations is an amount of time from a beginning of a transmission, from the server, of a first response within the respective transaction unit to a time of a receipt, by the server, of a last acknowledgement within the respective transaction unit.

37. (Amended) The apparatus of claim 35, further comprising:

an adapter to adapt content to be sent to the second apparatus based on a measurement determined by the bit rate measurer.

38. (Amended) The apparatus of claim 37 wherein the adapter is arranged to adapt a type of the content to be sent to the second apparatus based on the measurement determined by the bit rate measurer.

39. (Amended) The apparatus of claim 35, wherein the apparatus is arranged to function as a client, the second apparatus is arranged to function as a server and a respective one of the time durations is an amount of time from a beginning of a transmission of a first request, from the client, within the respective transaction unit to a time of a receipt, by the client, of a last response within the respective transaction unit.

40. (Amended) The apparatus of claim 39, further comprising:

a bit rate reporter to report the bit rate to the second apparatus, functioning as the server, the bit rate being based on a measurement determined by the bit rate measurer.

41. (Amended) The apparatus of claim 40, wherein the bit rate measurer is arranged to measure the bit rate at an application level within the client, such that a perceived bit rate is measured for a plurality of applications executing on the client.

42. (Amended) The apparatus of claim 41, wherein the bit rate reporter is arranged to report the bit rate to the server for each of the plurality of applications.

43. (Amended) The apparatus of claim 42, further comprising:

a bandwidth setter to allow a setting of an amount of bandwidth desired for at least one of the applications.

44. (Amended) The apparatus of claim 43, further comprising:

an inactive application detector to detect when one of the applications is inactive for a specified period of time, the inactive application detector being arranged to report to the server that one of the applications is inactive when the inactive application detector determines that the one of the applications is inactive for the specified period of time.

45. (Amended) A system for measuring a perceived bit rate, comprising:

a first apparatus configured to function as a server and including an adaptor; and

a second apparatus configured to function as a client comprising:

a bit rate measurer to measure a number of bits transmitted between the second apparatus and the first apparatus over a time period which is at most equal to a predetermined time period, wherein:

the adaptor is configured to adapt content to be sent to the second apparatus based on a measurement determined by the bit rate measurer,

the number of bits measured are those included only within at least one transaction unit, and

the time period is a sum of time durations of each of the at least one transaction unit.

46. (Amended) The system of claim 45, wherein the bit rate measurer is arranged to measure the bit rate according to a formula:

$$BR(i) = \frac{1}{T'} \left[\left(\sum_{j=0}^{N(i)-1} P_u(i-j) \right) + \left(P_u(i-N(i)) \cdot \left[\frac{T' - \sum_{j=0}^{N(i)-1} \Delta T_u(i-j)}{\Delta T_u(i-N(i))} \right] \right) \right],$$

where $BR(i)$ is a bit rate at an index time i , $T' = \text{Min} \left(T, \sum_{j=0}^i \Delta T_u(i-j) \right)$, T is

the time period, $\Delta T_u(i-j)$ is a time difference from a first request sent from the second apparatus and a last response received by the second apparatus from the first apparatus within a $(i-j)^{\text{th}}$ transaction unit, $P_u(i-j)$ is a total amount of data exchanged during the $(i-j)^{\text{th}}$ transaction unit, and $N(i)$ is a largest integer, such that $\sum_{j=0}^{N(i)-1} \Delta T_u(i-j) < T'$.

47. (Amended) The system of claim 45, wherein the bit rate measurer is arranged to measure the bit rate according to a formula:

$$BR(i) = \frac{1}{T'} [BR(i-1) \cdot (T' - \Delta T_u(i)) + P_u(i)],$$

where $BR(i)$ is a bit rate at an index time i , $T' = \text{Min} \left(T, \sum_{j=0}^i \Delta T_u(i-j) \right)$, T

is the time period, $\Delta T_u(i)$ is a time difference from a first request sent from the second apparatus and a last response received by the second apparatus from the first apparatus

within an i^{th} transaction unit, and $P_u(i)$ is a total amount of data exchanged during the i^{th} transaction unit.

48. (Amended) The system of claim 45, wherein the second apparatus further comprises a bit rate reporter to report the bit rate to the first apparatus, the bit rate being based on a measurement determined by the bit rate measurer.

49. (Amended) A mobile terminal for sending and receiving data wirelessly, the mobile terminal comprising:

a bit rate measurer to measure a number of bits transmitted between the mobile terminal and a server over a time period, wherein:

the number of bits measured are those included only within each of a plurality of transaction units, and

the time period is a sum of time durations of each of the transaction units.

50. (Amended) A server for communicating with a client, the server comprising:

a bit rate measurer to measure a number of bits transmitted between the server and the client over a time period;

an adapter to adapt content to be sent to the client based on a measurement determined by the bit rate measurer, wherein:

the number of bits measured are those included only within at least one transaction unit,

the time period is a sum of time durations of each of the at least one transaction unit,

a respective one of the time durations is an amount of time from a beginning of a transmission, from the server, of a first response within the respective transaction unit to a time of a receipt, by the server, of a last acknowledgement within the respective transaction unit, and

the bit rate measurer is configured to measure the bit rate according to a formula:

$$BR(i) = \frac{1}{T'} [BR(i-1) \cdot (T' - \Delta T_u(i)) + P_u(i)],$$

Cont
A1 where $BR(i)$ is a bit rate at an index time i , $T' = \text{Min} \left(T, \sum_{j=0}^i \Delta T_u(i-j) \right)$, T is the

time period, $\Delta T_u(i)$ is a time difference from a first response and a last acknowledgement within an i^{th} transaction unit, and $P_u(i)$ is a total amount of data exchanged during the i^{th} transaction unit.
